

Albert Einstein College of Medicine
Microbiology & Immunology Department
1300 Morris Park Avenue, Bronx, NY 10461
Tel: (718) 430-3282 / Fax: (718) 430-8711
e-mail: tdragic@aecom.yu.edu

Education & Research Experience

- 1988:** B.S. in Biochemistry - University of Paris 6, Paris, France
1989: M.S. in Molecular and Cellular Biology - University of Paris 6, Paris, France
Laboratory of Hormones and Reproduction, Kremlin-Bicetre Hospital, Paris, France
1994: Ph.D. in Molecular and Cellular Biology - University of Paris 6, Paris, France
Cochin Institute of Molecular Genetics, Paris, France
1998: Post-doctoral training
Aaron Diamond AIDS Research Center, The Rockefeller University, New York, NY

Appointments

- 1999:** Staff Investigator, Aaron Diamond AIDS Research Center,
Assistant Professor, The Rockefeller University, New York, NY
2000: Assistant Professor, Department of Microbiology and Immunology
Albert Einstein College of Medicine, Bronx, NY

Fellowships and Awards

- 1989:** French Ministry of Research and Technology Doctoral Fellowship (France)
1992: Association for AIDS Research Doctoral Fellowship (France)
1995: Association for Cancer Research Post-Doctoral Award (France)
1995: Aaron Diamond Foundation Post-Doctoral Fellowship
2001: Speaker's Fund for Biomedical Research, Award for Individual Investigators

Original Research Publications

- 1) Gougeon M-L., R. Olivier, S. Garcia, D. Guetard, **T. Dragic**, C. Dauguet and L. Montagnier. 1991. Evidence for an engagement process towards apoptosis in lymphocytes of HIV-infected patients. *C. R. Acad. Sci. Paris*, t.312: 529-537
- 2) **Dragic T.**, P. Charneau, F. Clavel and M. Alizon. 1992. Complementation of murine cells for human immunodeficiency virus envelope/CD4-mediated fusion in human/murine heterokaryons. *J. Virol.* 66: 4794-4802
- 3) **Dragic T.** and M. Alizon. 1993. Different requirements for membrane fusion mediated by the envelopes of human immunodeficiency virus types 1 and 2. *J. Virol.* 67: 2355-2359
- 4) Alizon M. and **T. Dragic**. 1994. CD26 antigen and HIV fusion? *Science* 264: 1161-1162
- 5) Lazaro I., D. Nanche, N. Signoret, A.M. Bernard, D. Marguet, D. Klatzmann, **T. Dragic**, M. Alizon and Q. Sattentau. 1994. Factors involved in entry of the human immunodeficiency virus type 1 into permissive cells: lack of evidence of a role for CD26. *J. Virol.* 68: 6536-6546.
- 6) **Dragic T.**, L. Picard and M. Alizon. 1995. Proteinase-resistant factors in human erythrocyte membranes mediate CD4-dependent fusion with cells expressing HIV-1 envelope proteins. *J. Virol.* 69: 1013-1018
- 7) **Dragic T.**, V. Litwin, G.P. Allaway, S. Martin, Y. Huang, K. Nagashima, C. Cayanan, P.J. Maddon, R. Koup, J.P. Moore and W.A. Paxton. 1996. HIV-1 entry into CD4+ cells is mediated by the chemokine receptor CC CKR-5. *Nature* 381: 667-673
- 8) Trkola A., **T. Dragic**, J. Arthos, J. Binley, W.C. Olson, G.P. Allaway, C. Cheng-Mayer, J. Robinson, P.J. Maddon and J.P. Moore. 1996. CD4-dependent, antibody-sensitive interactions between HIV-1 and its co-receptor CCR-5. *Nature* 384: 184-187
- 9) **Dragic T.**, A. Trkola, S.W. Lin, K.A. Nagashima, F. Kajumo, L. Zhao, W. Olson, L. Wu, C.R. Mackay, G.P. Allaway, T. Sakmar, J.P. Moore and J.P. Maddon. 1998. Amino-terminal substitutions in the CCR5 co-receptor impair gp120 binding and human immunodeficiency virus type-1 entry. *J. Virol.* 72: 279-285

- 11) Zhang Y., **T. Dragic**, Y. Cao, L. Kostrikis, D.S. Kwon, D.R. Littman, V.N. KewalRamani and J.P. Moore. 1998. Use of co-receptors other than CCR5 by non-syncytium-inducing adult and pediatric isolates of human immunodeficiency virus type 1 is rare in vitro. *J. Virol.* 72: 9337-9344
- 12) Genoud S., F. Kajumo, Y. Guo and **T. Dragic**. 1999. CCR5-mediated human immunodeficiency virus entry depends on an amino-terminal gp120-binding site and on the conformational integrity of all four extracellular domains. *J. Virol.* 73: 1645-1648
- 13) Olson W.C., G.E.E. Rabut, K. Nagashima, D.N.H. Tran, D.J. Anselma, S.P. Monard, J.P. Segal, D.A.D. Thompson, F. Kajumo, Y. Guo, J.P. Moore, P.J. Maddon and **T. Dragic**. 1999. Differential inhibition of HIV-1 fusion, gp120 binding, and CC-chemokine activity by monoclonal antibodies to CCR5. *J. Virol.* 73: 4145-4155
- 14) **Dragic T.**, A. Trkola, D.A.D. Thompson, E.G. Cormier, F.A. Kajumo, W. Ying, S.O. Smith, S. Lin, T. Sakmar and J.P. Moore. 2000. A binding pocket for a small molecule inhibitor of HIV-1 entry within the transmembrane helices of CCR5. *Proc. Natl. Acad. Sci.* 97: 5639-5644
- 15) Sanders R.W., L. Schiffner, A. Master, F. Kajumo, Y. Guo, **T. Dragic**, J.P. Moore and J.M. Binley 2000. Variable-loop-deleted variants of the human immunodeficiency virus type 1 envelope glycoprotein can be stabilized by an intermolecular disulfide bond between the gp120 and gp41 subunits. *J. Virol.* 74:5091-5100
- 16) Cormier E.G., M. Persuh, D.A.D. Thompson, S.W. Lin, T.P. Sakmar, W.C. Olson and **T. Dragic**. 2000. Specific interaction of CCR5 amino-terminal peptides containing sulfo-tyrosines with HIV-1 envelope glycoprotein gp120. *Proc. Natl. Acad. Sci.* 97: 5762-5767
- 17) Kajumo F., D.A.D. Thompson, Y. Guo and **T. Dragic**. 2000. Entry of R5X4 and X4 human immunodeficiency virus type 1 strains is mediated by negatively charged and tyrosine residues in the amino-terminal domain and the second extracellular loop of CXCR4. *Virology* 271: 240-247
- 18) Nagashima, K.A., D.A.D. Thompson, S.I. Rosenfield, P.J. Maddon, **T. Dragic** and W.C. Olson. 2001. Human immunodeficiency virus type-1 entry inhibitors PRO 542 and T-20 are potently synergistic in blocking virus-cell and cell-cell fusion. *J. Inf. Diseases* 183: 1121-1125
- 19) Cormier, E.G., D. Tran, L. Yukhayeve, W.C. Olson and **T. Dragic**. 2001. Mapping the determinants of the CCR5 amino-terminal sulfopeptide interaction with soluble human immunodeficiency virus type 1 gp120/CD4 complexes *J. Virol.* 75:5541-5549
- 20) Thompson, D.A.D., Cormier, E.G. and **T. Dragic**. 2002. CCR5 and CXCR4 Usage by Non-Clade B Human Immunodeficiency Virus Type 1 primary isolates. *J. Virol.* 76:3059-3064
- 21) Cormier, E.G. and **T. Dragic**. The crown and stem of the V3 loop play distinct roles in Human Immunodeficiency Virus Type 1 envelope glycoprotein interactions with the CCR5 coreceptor: *submitted*

Reviews and Book Chapters

- 1) Olivier R., O. Lopez, M. Mollereau, **Dragic, T.**, D. Guetard and L. Montagnier. 1993. Prevention of early cell death in peripheral blood lymphocytes of HIV infected individuals by an anti-oxidant: N-Acetyl Cysteine in *Oxidative Stress, Cell Activation and Viral Infection*. Ed: Pasquier, C., Birkhäuser, Boston: p323-332
- 2) **Dragic T.**, U. Hazan and M. Alizon. 1995. Detection of cell fusion mediated by the envelopes of human retroviruses by transactivation of a reporter gene in *Methods in Molecular Genetics* (Molecular Virology; vol.4) Ed. Adolph, K.W., Academic Press Inc., Orlando, Florida.
- 3) Paxton W.A., **Dragic, T.**, R.A. Koup and J.P. Moore. 1996. The β -chemokines, HIV type-1 second receptors and exposed uninfected persons. *AIDS Res and Human Retroviruses* 12: 1203-1207
- 4) Moore J.P., A. Trkola and **T. Dragic**. Second receptors for HIV. 1997. *Current Opinion in Immunology* 9: 551-562
- 4) **Dragic T.**, A. Trkola and J.P. Moore. 1997. The HIV co-receptors; gateways to the cell. *HIV: Advances in Research and Therapy* 7: 2-12
- 5) Moore J.P. and **T. Dragic**. 1999. See a pocket, sock it. *Nature* 401: 759
- 6) **Dragic, T.** An overview of the determinants of CCR5 and CXCR4 co-receptor function. 2001. *J. Gen. Virol.*: <http://www.sgm.ac.uk/JGVDirect>
- 7) Cormier, E.G. and **T. Dragic**. An overview of HIV-1 co-receptor function and its inhibitors. 2001. *HIV Mol. Immunol. Dat.*: 506-521

2000-present: Reviewer for Journal of Virology, Virology, Journal of General Virology, AIDS Research and Related Retroviruses, AIDS, Journal of Infectious Diseases, Journal of Experimental Medicine